

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

UTILITY
PATENT APPLICATION
TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	1309.43471X00	PTO 31353 10/17/69784
First Inventor	IKUO URATANI, et al	
Title	DISK ARRAY APPARATUS, AND METHOD FOR CONTROLLING THE SAME	
Express Mail Label No.		

APPLICATION ELEMENTS

SEE MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO:
Mail Stop Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-14501. Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)2. Applicant claims small entity status.
See 37 CFR 1.27.3. Specification [Total Pages: 75]
(preferred arrangement set forth below)

- Descriptive title of the invention
- Cross Reference to Related Applications
- Statement Regarding Fed sponsored R & D
- Reference to sequence listing, a table, or a computer program listing appendix
- Background of the Invention
- Brief Summary of the Invention
- Brief Description of the Drawings (if filed)
- Detailed Description
- Claim(s)
- Abstract of the Disclosure

4. Drawing(s) (35 U.S.C. 113) [Total Sheets: 19]

5. Oath or Declaration [Total Sheets: _____]

- a. Newly executed (original or copy)
- b. Copy from a prior application (37 CFR 1.63 (d))
(for continuation/divisional with Box 18 completed)

i. **DELETION OF INVENTOR(S)**
Signed statement attached deleting inventor(s)
Named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b)

6. Application Data Sheet. See 37 CFR 1.767. CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)8. Nucleotide and/or Amino Acid Sequence Submission
(if applicable, all necessary)

- a. Computer Readable Form (CRF)
- b. Specification Sequence Listing on:

i. CD-ROM or CD-R (2 copies); orii. paperc. Statements verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

- 9. Assignment Papers (cover sheet & documents(s))
- 10. 37 CFR 3.73(b) Statement Power of Attorney (when there is an assignee)
- 11. English Translation Document (if applicable)
- 12. Information Disclosure Statement (IDS)/PTO-1449 Copies of IDS Citations
- 13. Preliminary Amendment
- 14. Return Receipt Postcard (MPEP 503) (Should be specifically itemized)
- 15. Certified Copy of Priority Document(s) (if foreign priority is claimed)
- 16. Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
- 17. Other: **Figs. 1-18; Claim for Priority; Credit Card Payment Form**

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

 Continuation Divisional Continuation-in-part (CIP) of prior application No.:

Prior application information: Examiner: _____ Art Unit: _____

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

19. CORRESPONDENCE ADDRESS

<input checked="" type="checkbox"/> Customer Number	020457			OR <input type="checkbox"/> Correspondence address below	
Name	ANTONELLI, TERRY, STOUT & KRAUS, LLP				
Address					
City	State		Zip Code		
Country	Telephone	(703) 312-6600	Fax	(703) 312-6666	
Name (Print/Type)	Registration No. (Attorney/Agent)			29,621	
Signature				Date	February 3, 2004

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

020304
13281

13281

Approved for use through 07/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

FEE TRANSMITTAL for FY 2004		Complete if Known																																																																																																																																																	
		Application Number																																																																																																																																																	
		Filing Date	February 3, 2004																																																																																																																																																
		First Named Inventor	URATANI, I.																																																																																																																																																
		Examiner Name																																																																																																																																																	
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27		Art Unit																																																																																																																																																	
TOTAL AMOUNT OF PAYMENT		(\$)	1200.00																																																																																																																																																
METHOD OF PAYMENT (check all that apply)		FEES CALCULATION (continued)																																																																																																																																																	
<input type="checkbox"/> Check <input checked="" type="checkbox"/> Credit Card <input type="checkbox"/> Money <input type="checkbox"/> Other <input type="checkbox"/> None Order <input checked="" type="checkbox"/> Deposit Account: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">Deposit</td> <td>01-2135</td> </tr> <tr> <td>Account</td> <td></td> </tr> <tr> <td>Number</td> <td></td> </tr> <tr> <td>Deposit</td> <td></td> </tr> <tr> <td>Account</td> <td></td> </tr> <tr> <td>Name</td> <td>Antonelli, Terry, Stout & Kraus, LLP</td> </tr> </table> The Director is authorized to: (check all that apply) <input type="checkbox"/> Charge fee(s) indicated below <input checked="" type="checkbox"/> Credit any overpayments <input checked="" type="checkbox"/> Charge any additional fee(s) during the pendency of this application. <input type="checkbox"/> Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.		Deposit	01-2135	Account		Number		Deposit		Account		Name	Antonelli, Terry, Stout & Kraus, LLP	3. ADDITIONAL FEES <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Large Entity</th> <th style="width: 10%;">Small Entity</th> <th style="width: 80%;">Fee Description</th> <th style="width: 10%; text-align: right;">Fee Paid</th> </tr> </thead> <tbody> <tr><td>Fee Code (\$)</td><td>Fee Code (\$)</td><td></td><td></td></tr> <tr><td>1051</td><td>130</td><td>2051</td><td>65</td></tr> <tr><td>1052</td><td>50</td><td>2052</td><td>25</td></tr> <tr><td>1053</td><td>130</td><td>1053</td><td>130</td></tr> <tr><td>1812</td><td>2,520</td><td>1812</td><td>2,520</td></tr> <tr><td>1804</td><td>920*</td><td>1804</td><td>920*</td></tr> <tr><td>1805</td><td>1,840</td><td>1805</td><td>1,840*</td></tr> <tr><td>1251</td><td>110</td><td>2251</td><td>55</td></tr> <tr><td>1252</td><td>420</td><td>2252</td><td>210</td></tr> <tr><td>1253</td><td>950</td><td>2253</td><td>475</td></tr> <tr><td>1254</td><td>1,480</td><td>2254</td><td>740</td></tr> <tr><td>1255</td><td>2,010</td><td>2255</td><td>1,005</td></tr> <tr><td>1401</td><td>330</td><td>2401</td><td>165</td></tr> <tr><td>1402</td><td>330</td><td>2402</td><td>165</td></tr> <tr><td>1403</td><td>290</td><td>2403</td><td>145</td></tr> <tr><td>1451</td><td>1,510</td><td>1451</td><td>1,510</td></tr> <tr><td>1452</td><td>110</td><td>2452</td><td>55</td></tr> <tr><td>1453</td><td>1,330</td><td>2453</td><td>665</td></tr> <tr><td>1501</td><td>1,330</td><td>2501</td><td>665</td></tr> <tr><td>1502</td><td>480</td><td>2502</td><td>240</td></tr> <tr><td>1503</td><td>640</td><td>2503</td><td>320</td></tr> <tr><td>1406</td><td>130</td><td>1460</td><td>130</td></tr> <tr><td>1807</td><td>50</td><td>1807</td><td>50</td></tr> <tr><td>1806</td><td>180</td><td>1806</td><td>180</td></tr> <tr><td>8021</td><td>40</td><td>8021</td><td>40</td></tr> <tr><td>1809</td><td>770</td><td>2809</td><td>385</td></tr> <tr><td>1810</td><td>770</td><td>2810</td><td>385</td></tr> <tr><td>1801</td><td>770</td><td>2801</td><td>385</td></tr> <tr><td>1802</td><td>900</td><td>1802</td><td>900</td></tr> <tr><td colspan="4">Other fee (specify) _____</td></tr> <tr><td colspan="4">*Reduced by Basic Filing Fee Paid</td></tr> <tr><td colspan="4" style="text-align: right;">SUBTOTAL (3) (\$)</td></tr> </tbody> </table>		Large Entity	Small Entity	Fee Description	Fee Paid	Fee Code (\$)	Fee Code (\$)			1051	130	2051	65	1052	50	2052	25	1053	130	1053	130	1812	2,520	1812	2,520	1804	920*	1804	920*	1805	1,840	1805	1,840*	1251	110	2251	55	1252	420	2252	210	1253	950	2253	475	1254	1,480	2254	740	1255	2,010	2255	1,005	1401	330	2401	165	1402	330	2402	165	1403	290	2403	145	1451	1,510	1451	1,510	1452	110	2452	55	1453	1,330	2453	665	1501	1,330	2501	665	1502	480	2502	240	1503	640	2503	320	1406	130	1460	130	1807	50	1807	50	1806	180	1806	180	8021	40	8021	40	1809	770	2809	385	1810	770	2810	385	1801	770	2801	385	1802	900	1802	900	Other fee (specify) _____				*Reduced by Basic Filing Fee Paid				SUBTOTAL (3) (\$)			
Deposit	01-2135																																																																																																																																																		
Account																																																																																																																																																			
Number																																																																																																																																																			
Deposit																																																																																																																																																			
Account																																																																																																																																																			
Name	Antonelli, Terry, Stout & Kraus, LLP																																																																																																																																																		
Large Entity	Small Entity	Fee Description	Fee Paid																																																																																																																																																
Fee Code (\$)	Fee Code (\$)																																																																																																																																																		
1051	130	2051	65																																																																																																																																																
1052	50	2052	25																																																																																																																																																
1053	130	1053	130																																																																																																																																																
1812	2,520	1812	2,520																																																																																																																																																
1804	920*	1804	920*																																																																																																																																																
1805	1,840	1805	1,840*																																																																																																																																																
1251	110	2251	55																																																																																																																																																
1252	420	2252	210																																																																																																																																																
1253	950	2253	475																																																																																																																																																
1254	1,480	2254	740																																																																																																																																																
1255	2,010	2255	1,005																																																																																																																																																
1401	330	2401	165																																																																																																																																																
1402	330	2402	165																																																																																																																																																
1403	290	2403	145																																																																																																																																																
1451	1,510	1451	1,510																																																																																																																																																
1452	110	2452	55																																																																																																																																																
1453	1,330	2453	665																																																																																																																																																
1501	1,330	2501	665																																																																																																																																																
1502	480	2502	240																																																																																																																																																
1503	640	2503	320																																																																																																																																																
1406	130	1460	130																																																																																																																																																
1807	50	1807	50																																																																																																																																																
1806	180	1806	180																																																																																																																																																
8021	40	8021	40																																																																																																																																																
1809	770	2809	385																																																																																																																																																
1810	770	2810	385																																																																																																																																																
1801	770	2801	385																																																																																																																																																
1802	900	1802	900																																																																																																																																																
Other fee (specify) _____																																																																																																																																																			
*Reduced by Basic Filing Fee Paid																																																																																																																																																			
SUBTOTAL (3) (\$)																																																																																																																																																			
1. BASIC FILING FEE <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Large Entity</th> <th style="width: 10%;">Small Entity</th> <th style="width: 80%;">Fee Description</th> <th style="width: 10%; text-align: right;">Fee Paid</th> </tr> </thead> <tbody> <tr><td>Fee Code (\$)</td><td>Fee Code (\$)</td><td></td><td></td></tr> <tr><td>1001</td><td>770</td><td>2001</td><td>385</td></tr> <tr><td>1002</td><td>340</td><td>2002</td><td>170</td></tr> <tr><td>1003</td><td>530</td><td>2003</td><td>265</td></tr> <tr><td>1004</td><td>770</td><td>2004</td><td>385</td></tr> <tr><td>1005</td><td>160</td><td>2005</td><td>80</td></tr> <tr><td colspan="2" style="text-align: right;">SUBTOTAL (1)</td><td style="text-align: right;">770</td><td></td></tr> </tbody> </table> 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Extra Claims</th> <th style="width: 10%;">Fee from below</th> <th style="width: 10%;">Fee Paid</th> <th style="width: 10%; text-align: right;">Fee Description</th> </tr> </thead> <tbody> <tr><td>Total Claims 20</td><td>-20** = 0</td><td>X 18.00</td><td>= 0.00</td></tr> <tr><td>Indep. Claims 8</td><td>-3** = 5</td><td>x 86.00</td><td>= 430.00</td></tr> <tr><td>Multiple Dependent</td><td></td><td>290.00</td><td>= 0.00</td></tr> <tr><td colspan="2"></td><td></td><td></td></tr> <tr><td colspan="2"></td><td></td><td></td></tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Large Entity</th> <th style="width: 10%;">Small Entity</th> <th style="width: 80%;">Fee Description</th> <th style="width: 10%; text-align: right;">Fee Paid</th> </tr> </thead> <tbody> <tr><td>Fee Code (\$)</td><td>Fee Code (\$)</td><td></td><td></td></tr> <tr><td>1202</td><td>18</td><td>2202</td><td>9</td></tr> <tr><td>1201</td><td>86</td><td>2201</td><td>43</td></tr> <tr><td>1203</td><td>290</td><td>2203</td><td>145</td></tr> <tr><td>1204</td><td>86</td><td>2204</td><td>43</td></tr> <tr><td>1205</td><td>18</td><td>2205</td><td>9</td></tr> <tr><td colspan="2" style="text-align: right;">SUBTOTAL (2) \$</td><td style="text-align: right;">430.00</td><td></td></tr> </tbody> </table>		Large Entity	Small Entity	Fee Description	Fee Paid	Fee Code (\$)	Fee Code (\$)			1001	770	2001	385	1002	340	2002	170	1003	530	2003	265	1004	770	2004	385	1005	160	2005	80	SUBTOTAL (1)		770		Extra Claims	Fee from below	Fee Paid	Fee Description	Total Claims 20	-20** = 0	X 18.00	= 0.00	Indep. Claims 8	-3** = 5	x 86.00	= 430.00	Multiple Dependent		290.00	= 0.00									Large Entity	Small Entity	Fee Description	Fee Paid	Fee Code (\$)	Fee Code (\$)			1202	18	2202	9	1201	86	2201	43	1203	290	2203	145	1204	86	2204	43	1205	18	2205	9	SUBTOTAL (2) \$		430.00																																																											
Large Entity	Small Entity	Fee Description	Fee Paid																																																																																																																																																
Fee Code (\$)	Fee Code (\$)																																																																																																																																																		
1001	770	2001	385																																																																																																																																																
1002	340	2002	170																																																																																																																																																
1003	530	2003	265																																																																																																																																																
1004	770	2004	385																																																																																																																																																
1005	160	2005	80																																																																																																																																																
SUBTOTAL (1)		770																																																																																																																																																	
Extra Claims	Fee from below	Fee Paid	Fee Description																																																																																																																																																
Total Claims 20	-20** = 0	X 18.00	= 0.00																																																																																																																																																
Indep. Claims 8	-3** = 5	x 86.00	= 430.00																																																																																																																																																
Multiple Dependent		290.00	= 0.00																																																																																																																																																
Large Entity	Small Entity	Fee Description	Fee Paid																																																																																																																																																
Fee Code (\$)	Fee Code (\$)																																																																																																																																																		
1202	18	2202	9																																																																																																																																																
1201	86	2201	43																																																																																																																																																
1203	290	2203	145																																																																																																																																																
1204	86	2204	43																																																																																																																																																
1205	18	2205	9																																																																																																																																																
SUBTOTAL (2) \$		430.00																																																																																																																																																	

**or number previously paid, if greater; For Reissues, see above.

SUBMITTED BY		Complete (if applicable)	
Name (Print/Type)	Carl I. Brundidge	Registration No. (Attorney/Agent)	29,621
Signature		Telephone	703-312-6600
		Date	02/03/2004

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450